

**Patent claims**

5    1. Method for transmitting text- and/or binary information (short message) in addition to voice information for a talker (if present) and at least one listener of a Voice Group Call, characterised by sending a special, dedicated signal to all listeners and to the talker.

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2. Method according to claim 1, characterized in that the message is sent in unacknowledged mode.

15    3. Method according to claim 1 or 2, characterized in that the special dedicated signal is a short message mobile terminated SM MT.

20    4. Method according to any of claims 1-3, characterized in that the SM follows the structure of a regular PtP-SMS in parallel to an ongoing PtP-voice- or PtP-cs-data-call.

25    5. Method according to any of claims 1-4, characterized in that the SM is send from the current talker to the network in form of a short message mobile originated SM MO.

30    6. Method according to claim 5, characterized in that the SM MO is sent in acknowledged mode.

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7. Method according to any of claims 1-6, characterized in that the SM will be addressed by an associated Voice Group Call reference.
- 5 8. Method according to any of claims 1-7, characterized in that if the current talker is sending a SM and during the sending the talker intends to end his speaking, the MS will hold the uplink until the SM is sent completely to the network.
- 10 9. Method according to any of claims 1-8, characterized in that a SME in the network requests the SC to send a SM to the members of a VGC, the SC interrogates the GCR in order to retrieve the routing information of an Anchor-15 MSC for this VGC, the SC forwards the SM to the appointed Anchor-MSC for this VGC, the Anchor-MSC itself forward the SM to all base station subsystems BSS partaking in the VGC and in addition to all Relay-MSCs, the Relay-MSCs send the SM to all respective BSS for this VGC, which transmit it to the listeners.
- 20 10. Method according to any of claims 1-9, characterized in that the current talker sends a SM via a SACCH of the respective uplink-channel on the resource controlling signalling connection control part SCCP to the MSC analogue to the sending of a PtP-SMS via the respective SACCH, where the destination of the SM can be either a 25 MSISDN or a VGC-REFERENCE.
- 30 11. Method according to any of claims 1-10, characterized in that by using the MSISDN the SM is forwarded to the SC and there it is handled according to normal PtP-SM.

12. Method according to any of claims 1-11, characterized in that by using the VGC-Reference the SM is handled as accordingly the described procedures.

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13. Mobile communication system with at least one logical unit for controlling signal exchange between the members of a Voice Call Group and with additional functional processing means for transmitting text-  
10 and/or binary information to one or more users of the Voice Group.

14. Mobile communication system according to claim 13, characterized in that the text- and/or binary  
15 information is a short message SM.